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## Abstract of the Disclosure

The systems described herein autonomously image, analyze, and store date for samples in a tissue microarray. The system may include a tissue microarray, a robotic microscope, and an imaging workstation that executes software to automatically control operation of the microscope to capture images from the microarray and analyze image results. A low magnification may be used to register samples within the microarray and obtain coordinates for each tissue specimen. Progressively higher magnifications may be used to analyze images of each registered specimen. Images and quantitative data from the images may then be stored in a relational database for subsequent review. The system may be local, or may be Web-based for distributed control and sharing of results.